## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended): A method for the treatment of a host having a Orthomyxoviridae or Paramyxoviridae viral infection or abnormal cellular proliferation comprising administering to a host in need thereof an effective amount of a compound of formula [I-a], [I-b], [I-c], [II-a], [II-b], or [II-c]:

or its  $\beta$ -L enantiomer or a pharmaceutically acceptable salt thereof, wherein:

each D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid;

each W<sup>1</sup> and W<sup>2</sup> is independently CH or N;

[[each]] X<sup>1</sup> and X<sup>2</sup> is independently hydrogen, F, Cl, Br, I, NH<sub>2</sub>, NHR<sup>4</sup>, NR<sup>4</sup>R<sup>4</sup>, NHOR<sup>4</sup>, NR<sup>4</sup>NR<sup>4</sup>'R<sup>4</sup>'', OH, OR<sup>4</sup>, SH or SR<sup>4</sup>;

[[each]] Y<sup>1</sup> is O, S or Se;

each Z is CH2 or NH;

each R<sup>1</sup> and R<sup>1'</sup> is independently hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aryl, alkylaryl, F, Cl, Br, I, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup>R<sup>5'</sup>, NHOR<sup>5</sup>, NR<sup>5</sup>NHR<sup>5'</sup>, NR<sup>5</sup>NR<sup>5'</sup>R<sup>5''</sup>, OH, OR<sup>5</sup>, SH, SR<sup>5</sup>, NO<sub>2</sub>, NO, CH<sub>2</sub>OH, CH<sub>2</sub>OR<sup>5</sup>, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>5</sup>, CONH<sub>2</sub>, CONHR<sup>5</sup>, CONR<sup>5</sup>R<sup>5'</sup> or CN;

each R<sup>2</sup> and R<sup>2'</sup> independently is hydrogen, F, Cl, Br, I, OH, SH, OCH<sub>3</sub>, SCH<sub>3</sub>, NH<sub>2</sub>, NHCH<sub>3</sub>, CH=CH<sub>2</sub>, CN, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>2</sub>OH or CO<sub>2</sub>H;

each R<sup>3</sup> and R<sup>3'</sup> independently is hydrogen, F, Cl, Br, I, OH, SH, OCH<sub>3</sub>, SCH<sub>3</sub>, NH<sub>2</sub>, NHCH<sub>3</sub>, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, CH=CH<sub>2</sub>, CN, CH<sub>2</sub>NH<sub>2</sub>, CH<sub>2</sub>OH or CO<sub>2</sub>H; and

each R<sup>4</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>5</sup> and R<sup>5</sup> independently is hydrogen, lower alkyl, lower alkenyl, aryl or arylalkyl;

such that for the nucleoside of formula [I-a], [I-b] or [I-c] at least one of R<sup>2</sup> and R<sup>2'</sup> is hydrogen and at least one of R<sup>3</sup> and R<sup>3'</sup> is hydrogen;

provided that when the host has a *Orthomyxoviridae* or *Paramyxoviridae* viral infection, R<sup>2'</sup> and R<sup>3'</sup> are not simultaneously OH;

provided that for the nucleoside of formula [I-a], when D,  $R^3$ ,  $R^2$  and  $R^{1'}$  are hydrogen,  $R^{3'}$  and  $R^{2'}$  are OH,  $Y^1$  is O, and  $X^1$  is NH<sub>2</sub>, then  $R^1$  is not F for the treatment of a host having abnormal cellular proliferation;

provided that for the nucleoside of formula [I-a], when D,  $R^3$ ,  $R^3$ ,  $R^2$ ,  $R^1$  and  $R^{1'}$  are hydrogen,  $Y^1$  is O, and  $X^1$  is  $NH_2$ , then  $R^{2'}$  is not OH for the treatment of a host having abnormal cellular proliferation;

provided that for the nucleoside of formula [I-a], when D,  $R^3$ ,  $R^2$ ,  $R^2$ , and  $R^{1'}$  are hydrogen,  $R^1$  is hydrogen or methyl,  $Y^1$  is O, and  $X^1$  is  $NH_2$ , then  $R^{3'}$  is not OH for the treatment of a host having abnormal cellular proliferation;

provided that for a nucleoside of formula [I-a], when D,  $R^3$ ,  $R^2$  and  $R^{1'}$  are hydrogen,  $R^{3'}$  and  $R^{2'}$  are OH,  $Y^1$  is O, and  $X^1$  is OH, then  $R^1$  is not OH for the treatment of a host having abnormal cellular proliferation;

provided that for a nucleoside of formula [I-a], when  $Y^1$  is O,  $X^1$  is NH<sub>2</sub> or NHOH, and D,  $R^1$ , and  $R^{1'}$  are hydrogen,  $R^{2'}$  and  $R^{3'}$  are not simultaneously OH;

provided that for a nucleoside of formula [I-a], when  $Y^1$  is O,  $X^1$  is NH<sub>2</sub>, D is hydrogen or acyl,  $R^2$  is OH,  $R^1$  and  $R^{1'}$  are hydrogen,  $R^3$  and  $R^{3'}$  are not simultaneously hydrogen;

provided that for a nucleoside of formula [I-a], when  $Y^1$  is O, D and  $R^{1'}$  are hydrogen,  $R^{3'}$  and  $R^2$  are simultaneously OH, and  $R^1$  is hydrogen or F,  $X^1$  is not NH<sub>2</sub>, NHCH<sub>3</sub>, or NHOH;

provided that for a nucleoside of formula [I-a], when  $Y^1$  is O,  $X^1$  is NHOH,  $R^{3'}$  is OH,  $R^1$  is hydrogen, methyl, or F, and D and  $R^{1'}$  are hydrogen,  $R^2$  and  $R^{2'}$  are not simultaneously hydrogen; and

provided that for a nucleoside of formula [I-a], when  $Y^1$  is O,  $X^1$  is OH,  $R^3$  is OH,  $R^1$  is F, and D and  $R^1$  are hydrogen,  $R^2$  and  $R^2$  are not simultaneously hydrogen.

2. (Currently amended): The method of claim 1, wherein the  $\beta$ -D nucleoside of formula (I-a) <u>has variables X<sup>1</sup>, Y<sup>1</sup>, R<sup>1</sup>, R<sup>1</sup>, R<sup>2</sup>, R<sup>2</sup>, R<sup>3</sup>, and R<sup>3'</sup> [[is]] selected from one of the following <u>rows</u>:</u>

X	γ1	R <sup>1</sup>	R <sup>1</sup>	R <sup>2</sup>	R <sup>2</sup>	R³	R <sup>3</sup> '
NH <sub>2</sub>	0	Н	H	ОН	Н	Н	ОН
NH <sub>2</sub>	0	Н	Н	ОН	H	Н	l
NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	CI
NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	Br
NH <sub>2</sub>	0	Н	Н	Н	CI	Н	ОН
NH <sub>2</sub>	0	Н	Н	Н	Br	Н	ОН
NH <sub>2</sub>	0	- Walter Company	Н	Н	ОН	Br	Н
NH <sub>2</sub>	0	eschool	Н	Н	ОН	Н	Н
NH <sub>2</sub>	0	H	Н	Cl	Н	Н	ОН
NH <sub>2</sub>	0	F	Н	ОН	Н	Н	ОН
NH <sub>2</sub>	0	F	Н	Н	ОН	Н	ОН
NH <sub>2</sub>	0	F	Н	Н	ОН	Н	Н
NH <sub>2</sub>	0	F	Н	Н	ОН	CI	Н
NH <sub>2</sub>	0	F	Н	Н	ОН	Br	Н
NH <sub>2</sub>	0	F	Н	Н	CI	Н	ОН
NH <sub>2</sub>	0	Br	Н	Н	ОН	CI	Н

<b>X</b> 1	γ1	R	R <sup>1</sup>	R <sup>2</sup>	R <sup>2</sup>	R³	R³
NH <sub>2</sub>	0	Br	H	H	ОН	Н	ОН
NH <sub>2</sub>	0	Br	Н	ОН	Н	Н	ОН
NH <sub>2</sub>	0	l	Н	Н	ОН	Br	Н
NH <sub>2</sub>	. O	I	Н	Н	Cl	H	ОН
NH <sub>2</sub>	0	чения	Н	Br	Н	Н	ОН
NH <sub>2</sub>	0	ОН	H	ОН	Н		ОН
NH <sub>2</sub>	0	NH <sub>2</sub>	Н	Н	ОН	Н	ОН
NH <sub>2</sub>	0	CH <sub>3</sub>	H	Н	ОН	CI	Н
NH <sub>2</sub>	NH	H	H	ОН	H	Н	ОН
NH-(2-Ph-	0	Н	Н	ОН	Н	Н	ОН
Et)							
NH-NH <sub>2</sub>	0	Н	<b>—</b>	ОН	Н	H	ОН
NH-NH <sub>2</sub>	0	F	H	ОН	H	H	ОН
NH-NH <sub>2</sub>	0	CH <sub>3</sub>	No.	Н	ОН	Н	ОН
NH-OH	0	Н	Н	Н	ОН	Н	ОН
NH-OH	0	F	Н	Н	ОН	Н	ОН
NH-OH	0	Br	Н	Н	ОН	Н	ОН
NH-OH	0	1	Н	Н	ОН	Н	ОН
NH-OH	0	Н	Н	ОН	Н	Н	ОН
ОН	0	ОН	Н	ОН	Н	Н	ОН
ОН	0	NH <sub>2</sub>	Н	Н	ОН	Н	ОН
					·····		

<b>X</b> 1	Υ¹	R <sup>1</sup>	R¹	R <sup>2</sup>	R <sup>2</sup>	R³	R³
ОН	0	F	Н	ОН	H	H	ОН
ОН	0	F	H	Н	ОН	Н	ОН
ОН	0	F	Н	Н	Н	Н	ОН
S-CH₃	0	Н	Н	Н	F	Н	ОН
SH	0	os de la companya de		Н	ОН	Н	ОН
SH	0	F	and the state of t	H	ОН	Н	ОН
NH-(2-Ph-	0	Н	H	Н	ОН	Н	ОН
Et)							
ОН	0	ОН	-	Н	ОН	<b>—</b>	ОН
ОН	0	Н	Н	Н	ОН	Н	Н

or its  $\beta\text{-L-enantiomer}$  or a pharmaceutically acceptable salt thereof.

3-34. Canceled.

35. (Previously presented): A method for the treatment of a host having a Flaviviridae, Orthomyxoviridae or Paramyxoviridae viral infection or abnormal cellular proliferation comprising administering to a host in need thereof an effective amount of a compound of formula (XXII):

or its  $\beta\text{-}D$  enantiomer or a pharmaceutically acceptable salt thereof, wherein:

each D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid;

each P<sup>1</sup> is hydrogen, lower alkyl, lower alkenyl, aryl, arylalkyl, OH, OR<sup>4</sup>, NH<sub>2</sub>, NHR<sup>4</sup> or NR<sup>4</sup>R<sup>4</sup>;

each R¹ is hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aryl, alkylaryl, F, Cl, Br, I, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup>R<sup>5'</sup>, NHOR<sup>5</sup>, NR<sup>5</sup>NHR<sup>5'</sup>, NR<sup>5</sup>NR<sup>5'</sup>R<sup>5''</sup>, OH, OR<sup>5</sup>, SH, SR<sup>5</sup>, NO<sub>2</sub>, NO, CH<sub>2</sub>OH, CH<sub>2</sub>OR<sup>5</sup>, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>5</sup>, CONH<sub>2</sub>, CONHR<sup>5</sup>, CONR<sup>5</sup>R<sup>5'</sup> or CN; and each R⁴, R⁴', R⁵, R⁵' and R⁵' independently is hydrogen, lower alkyl, lower alkenyl, aryl or arylalkyl;

provided that when the host has an HCV infection and D and P<sup>1</sup> are hydrogen, R<sup>1</sup> is not hydrogen.

36. (Previously presented): A method for the treatment of a host having a Flaviviridae, Orthomyxoviridae or Paramyxoviridae viral infection or abnormal cellular proliferation comprising administering to a host in need thereof an effective amount of a compound of formula:

or its  $\beta$ -D enantiomer or a pharmaceutically acceptable salt thereof, wherein: each D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid.

37-38. Canceled.

39. (Previously presented): A method for the treatment of a host having a Orthornyxoviridae or Paramyxoviridae viral infection comprising administering to a host in need thereof an effective amount of a compound of formula:

or a pharmaceutically acceptable salt thereof.

40-43. (Canceled)

44. (Currently amended): A method for the treatment of a hepatitis C virus infection in a host comprising administering to a host in need thereof an effective amount of a compound according to <u>claim 60</u>. any one of claims 60-62, 64, and 65.

45-49. Canceled.

50. (Previously presented): A method for the treatment of a hepatitis C virus infection in a host comprising administering to a host in need thereof an effective amount of a β-L nucleoside of formula (XXII):

or its  $\beta\text{-}D$  enantiomer or a pharmaceutically acceptable salt thereof, wherein:

each D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate, monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or amino acid;

each P<sup>1</sup> is hydrogen, lower alkyl, lower alkenyl, aryl, arylalkyl, OH, OR<sup>4</sup>, NH<sub>2</sub>, NHR<sup>4</sup> or NR<sup>4</sup>R<sup>4</sup>;

each R<sup>1</sup> is hydrogen, lower alkyl, lower alkenyl, lower alkynyl, aryl, alkylaryl, F, Cl, Br, I, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup>R<sup>5</sup>', NHOR<sup>5</sup>, NR<sup>5</sup>NHR<sup>5</sup>', NR<sup>5</sup>NR<sup>5</sup>'R<sup>5</sup>'', OH, OR<sup>5</sup>, SH, SR<sup>5</sup>, NO<sub>2</sub>, NO, CH<sub>2</sub>OH, CH<sub>2</sub>OR<sup>5</sup>, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>5</sup>, CONH<sub>2</sub>, CONHR<sup>5</sup>, CONR<sup>5</sup>R<sup>5</sup>' or CN; and each R<sup>4</sup>, R<sup>4</sup>', R<sup>5</sup>, R<sup>5</sup>' and R<sup>5</sup>'' independently is hydrogen, lower alkyl, lower alkenyl, aryl or arylalkyl;

optionally in a pharmaceutically acceptable carrier;

provided that when D and P<sup>1</sup> are hydrogen, R<sup>1</sup> is not hydrogen.

51. (Previously presented): A method for the treatment of a hepatitis C virus infection in a host comprising administering to a host in need thereof an effective amount of a β-L nucleoside of formula:

or its β-D enantiomer or a pharmaceutically acceptable salt thereof, wherein:
each D is hydrogen, alkyl, acyl, monophosphate, diphosphate, triphosphate,
monophosphate ester, diphosphate ester, triphosphate ester, phospholipid or
amino acid;

optionally in a pharmaceutically acceptable carrier.

52-58. Canceled.

- 59. (Currently amended): The method according to claims 1, 35, or 50, wherein at least one of each R<sup>4</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>5</sup> and R<sup>5</sup> independently is unsubstituted or substituted phenyl or benzyl.
- 60. (Currently amended): A method for the treatment of a host having a Flaviviridae viral infection comprising administering to a host in need thereof an effective amount of a compound of formula [I-a]:

HO 
$$R^3$$
  $R^2$   $R^2$   $R^2$   $R^3$   $R^2$   $R^3$   $R^2$ 

wherein the  $\beta\text{-}D$  nucleoside of formula (I-a) is selected from one of the following:

X	Υ1	R¹	R¹'	R <sup>2</sup>	R²	R³	R³'
NH <sub>2</sub>	0	Н	H	ОН	H	Н	<u> </u>
NH <sub>2</sub>	0	Н	H	ОН	Н	Н	Cl
NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	Br
NH <sub>2</sub>	0	Н	Н	Н	ОН	Br	Н
NH <sub>2</sub>	0	H	H	H	OH	H	H
NH <sub>2</sub>	0	F	Н	est to the state of the state o	ОН Н	Н	Н
NH <sub>2</sub>	0	F	H	and the same	ОН	CI	Н
NH <sub>2</sub>	0	F	H	Н	ОН	Br	Н
NH <sub>2</sub>	0	Br	Н	Н	ОН	CI	Н
NH <sub>2</sub>	0	-	Н	Н	ОН	Br	Н
NH <sub>2</sub>	0	CH <sub>3</sub>	Н	Н	ОН	CI	Н
NH-(2-Ph-Et)	0	Н	Н	ОН	Н	Н	ОН
NH-NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	ОН
NH-NH <sub>2</sub>	0	F	Н	ОН	Н	Н	ОН

<b>X</b> <sup>1</sup>	Y¹	R¹	R¹′	R <sup>2</sup>	R <sup>2</sup>	₽³	R³'
NH-NH <sub>2</sub>	0	CH₃	H	Ħ	OH	H	OH
NH-ОН	θ	Н	H	H	OH	H	OH
NH-ОН	0	F	Ħ	Ħ	OH	Ħ	OH
NH-OH	θ	<del>Br</del>	Ħ	H	OH	H	OH
NH-OH	0	**	H	H	OH	H	OH
NH-OH	0	Н	H	ОН	Н	Н	ОН
S-CH <sub>3</sub>	0	Н	Н	Н	F	Н	ОН
NH-(2-Ph-Et)	0	H	H	H	OH	Н	OH
ОН	0	Н	Н	Н	ОН	Н	Н

or its  $\beta\text{-L-enantiomer}$  or a pharmaceutically acceptable salt thereof.

61-65. Canceled.

66. (Currently amended): A method for the treatment or prophylaxis of a host exhibiting a *Flaviviridae*, *Orthomyxoviridae* or *Paramyxoviridae* viral infection comprising administering to a host in need thereof an effective amount of a compound of the formula:

or its  $\beta\text{-L}$  enantiomer or a pharmaceutically acceptable salt thereof.

67. (Previously presented): The method of claim 1, wherein the  $\beta$ -D nucleoside of formula (I-a) is selected from one of the following:

D	XI	Υ¹	R	R <sup>1</sup>	R <sup>2</sup>	R²'	R³	R³
Н	NH <sub>2</sub>	0	Н	Н	ОН	H .	Н	ОН
Н	NH <sub>2</sub>	0	Н	-	ОН	Н	Н	
Н	NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	CI
Н	NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	Br
Н	NH <sub>2</sub>	0	Н	Н	Н	CI	Н	ОН
Н	NH <sub>2</sub>	0	Н	Н	Н	Br	Н	ОН
Н	NH <sub>2</sub>	0	Н	Н	Н	ОН	Br	Н
Н	NH <sub>2</sub>	0	Н	Н	Н	ОН	Н	Н
Н	NH <sub>2</sub>	0	H	H	CI	Н	Н	ОН
Н	NH <sub>2</sub>	0	F	H	ОН	Н	H	ОН
Н	NH <sub>2</sub>	0	F	H	Н	ОН	Н	ОН
Н	NH <sub>2</sub>	0	F	Н	Н	ОН	Н	Н
Н	NH <sub>2</sub>	0	F	Н	Н	ОН	CI	Н
Н	NH <sub>2</sub>	0	F	Н	H	ОН	Br	Н
Н	NH <sub>2</sub>	0	F	Н	Н	CI	Н	ОН
Н	NH <sub>2</sub>	0	Br	Н	Н	ОН	CI	H
Н	NH <sub>2</sub>	0	Br	Н	Н	ОН	Н	ОН
Н	NH <sub>2</sub>	0	Br	Н	ОН	Н	Н	ОН

D	X <sup>1</sup>	Y <sup>1</sup>	R <sup>1</sup>	R¹	R <sup>2</sup>	R <sup>2</sup>	R³	R
H	NH <sub>2</sub>	О	<u> </u>	Н	Н	ОН	Br	Н
Н	NH <sub>2</sub>	0	1	Н	Н	Cl	Н	ОН
Н	NH <sub>2</sub>	0	I	Н	Br	Н	Н	ОН
Н	NH <sub>2</sub>	0	ОН	Н	ОН	Н	Н	ОН
Н	NH <sub>2</sub>	0	NH <sub>2</sub>	- unque	Н	ОН	Н	ОН
Н	NH <sub>2</sub>	0	CH <sub>3</sub>	Н	Н	ОН	CI	Н
Н	NH <sub>2</sub>	NH	Н	Н	ОН	Н	Н	ОН
Н	NH-(2-Ph-	0	Н	No control of the con	ОН	Н	Н	ОН
	Et)							
Н	NH-NH <sub>2</sub>	0	Н	Н	ОН	Н	Н	ОН
Н	NH-NH <sub>2</sub>	0	F	Н	ОН	Н	Н	ОН
Н	NH-NH <sub>2</sub>	0	CH <sub>3</sub>	Н	Н	ОН	Н	ОН
Н	NH-OH	0		H	Н	ОН	H	ОН
Н	NH-OH	0	F	Н	Н	ОН	H	ОН
Н	NH-OH	0	Br	Н	Н	ОН	Н	ОН
Н	NH-OH	0	1	Н	Н	ОН	Н	ОН
Н	NH-OH	0	Н	Н	ОН	Н	Н	ОН
Н	ОН	0	ОН	Н	ОН	Н	Н	ОН
Н	ОН	0	NH <sub>2</sub>	Н	Н	ОН	Н	ОН
Н	ОН	0	F	Н	ОН	Н	Н	ОН
Н	ОН	0	F	Н	Н	ОН	Н	ОН

D	<b>X</b> 1	$\gamma^{1}$	R <sup>1</sup>	R <sup>1</sup>	R <sup>2</sup>	R <sup>2</sup>	R <sup>3</sup>	R³'
H	ОН	0	F	Н	H	Н	Н	ОН
Н	S-CH₃	0	Н	Н	Н	F	Н	ОН
Н	SH	0	Н	Н	Н	ОН	Н	ОН
Н	SH	0	F.	. Н	Н	ОН	Н	ОН
Н	NH-(2-Ph-	0		Н	Н	ОН	Н	ОН
	Et)							
Н	ОН	0	ОН	Н	Н	ОН	Н	ОН
Н	ОН	0	Н	Н	Н	ОН	- Transport	Н

or its  $\beta\mbox{-L-enantiomer}$  or a pharmaceutically acceptable salt thereof.

68-70. Canceled.